Contents lists available at ScienceDirect

Computers in Human Behavior

Cyber dating abuse in adolescents: Myths of romantic love, sexting practices and bullying

Ainize Martínez Soto [a], Cristina Lopez-del Burgo [b,*], Aranzazu Albertos [c], Izaskun Ibabe [d]

[a] *University College of Psychology, University of the Basque Country (UPV/EHU), Donostia, Spain, Avda. Tolosa 70, 20018, Donostia-San Sebastián, Spain*
[b] *Department of Preventive Medicine and Public Health, University of Navarra, Pamplona, Spain, C/ Irunlarrea, N° 1, 31008, Pamplona, Spain*
[c] *School of Education and Psychology, University of Navarra, Pamplona, Spain, Ismael Sánchez Bella Building, Campus Universitario, 31009, Pamplona, Spain*
[d] *Department of Clinical and Health Psychology and Research Methodology, University College of Psychology, University of the Basque Country UPV/EHU, Avda. Tolosa 70, 20018, Donostia-San Sebastián, Spain*

ARTICLE INFO

ABSTRACT

Cyber dating abuse (CDA) is a growing problem with serious consequences for adolescents, hence the importance of understanding its relationship to other variables for developing more effective prevention strategies. The current study aimed first to analyze CDA, bullying, sexting and myths of romantic love depending on sex (girls *vs* boys), country (Spain *vs* Latin American countries) and religiosity (high *vs* low). The second objective was to investigate the explanatory factors of CDA, examining variables associated with bullying, sexting and myths of romantic love, using structural equation modeling (SEM). The sample consisted of 3264 adolescents between 14 and 18 years old (52% girls; 32% Spanish; 68% Latin Americans). Findings showed that boys had more bullying engagement, sexting, and assumption of myths of romantic love. The highly religious group presented less sexting engagement. The results also revealed that CDA is associated with sexting and that myths of romantic love have mediational effects. Prevention programs should include strategies to help adolescents use the Internet safely and identify any type of abusive behavior both among peers and in a romantic relationship, taking into account the peculiarities of virtual interactions.

1. Introduction

Romantic relationships are a relevant part of young people's social lives, with significant influence on their emotional development. In their first relationships, adolescents often feel new emotions and must deal with potential conflict (e.g., jealousy, insecurities), and violent dynamics and physically/psychologically or sexually abusive behaviors can sometimes develop (Caridade et al., 2020). Nowadays, it is quite easy for dating violence to move from the real world to the virtual world. As technology and social networks have become integrated into young people's daily lives, social interactions and dating relationships (Romo-Tobón et al., 2020), cyber dating abuse (CDA) has emerged as a new form of abuse. CDA is defined as the use of technology and digital media to perpetrate any abusive behavior deliberately and repeatedly towards the partner or ex-partner in the context of a dating or courtship relationship. It encompasses a wide range of behaviors grouped into five dimensions: direct psychological aggression, control,

public harassment, cyber sexual aggression and social exclusion (Martínez-Soto & Ibabe, 2023). Recent research shows that CDA is a growing phenomenon worldwide, with an estimated victimization rate as high as 47% (Martínez-Soto & Ibabe, 2023).

Several studies suggest a strong association between cyber dating abuse and offline dating abuse (e.g., Cava, Buelga, et al., 2020; Melander & Marganski, 2020; Zweig et al., 2013). Zweig et al. (2013) even showed that almost all adolescents who suffered cyber dating abuse had also experienced offline psychological dating abuse. These findings could be suggesting a co-occurrence of offline dating abuse and cyber dating abuse in dating relationships. However, CDA has some differential characteristics from offline dating abuse, which justifies specific research on CDA and its correlates. For example, it is very difficult for a victim to escape the online abuse, as it is practically impossible to delete something once it is online, remaining permanently on the Internet. Furthermore, abusive messages and images can be re-sent by third parties, which would facilitate revictimization (Calvete et al., 2021).

Some victims of CDA present polyvictimization or polyaggression, showing a higher alcohol and/or drug use, engagement in risky sexual behaviors like sexting, and are more likely to have suffered bullying victimization (Caridade & Braga, 2020; Van Ouytsel et al., 2017). Potential gender differences in CDA have also been a prevalent research issue, and a meta-analysis has reported CDA victimization as gender symmetrical (Martínez-Soto & Ibabe, 2023).

Experiencing cyber dating abuse is associated with negative psychological and physical outcomes. Several studies suggest that the impact of CDA is wide-ranging and causes considerable harm. For example, victims of CDA have reported depression and anxiety, weight change, sleep disturbance and self-harm behaviors (Brown et al., 2021). However, research on the context in which CDA among adolescents occurs is still scarce and possible differences between boys and girls have not been explored yet.

1.1. Myths of romantic love

Myths of romantic love include some unreal and distorted beliefs about the nature of love (e.g., power of love to cope with all difficulties, love is suffering, jealousy is a sign of love, the existence of soul mates) (Sánchez-Hernández et al., 2020). Adolescents and young people may be more vulnerable to the influence of these myths, making them justify and accept that certain abusive, controlling and jealous behaviors are expressions of love or worry in their romantic relationship (Cava, Martínez-Ferrer, et al., 2020). Higher prevalence rates of these beliefs about love have indeed been found among young individuals (Borrajo et al., 2015; Rodríguez-Castro & Alonso-Ruido, 2015). With the internalization of myths of romantic love, adolescents may interpret their partner's jealousy and controlling behaviors as normal as well as tolerate their abusive behaviors thinking their partner is their true love. In this way, those adolescents who believe the most in the romantic myths of love could be exposed to more cyber dating abuse, more specifically, to cyber control (Borrajo et al., 2015; Cava et al., 2020a, 2020b).

Some studies found a higher prevalence of myths among boys (Bisquert-Bover et al., 2019), while other research reflects that girls have a greater adherence to myths (Marcos et al., 2020). Differences between boys and girls have been observed in some specific beliefs in the myths of romantic love. In a meta-analysis by Jiménez-Picón et al. (2022), women showed higher levels of beliefs related with the only true love, eternal passion and couple myths, whereas men believed more in marriage, jealousy and love-maltreatment link myths. Similarly, in a study carried by Rodríguez-Castro et al. (2013), adolescent girls showed a higher belief in the myth of the omnipotence of love, whereas adolescent boys more easily accepted the romantic myths of jealousy as a sign of love and the possible coexistence of love and abuse in a relationship. According to the theory of differential socialization, boys and girls acquire differentiated gender identities that involve attitudes, behaviors and stereotypical norms of conduct assigned to each gender (Ferrer Pérez and Bosch Fiol, 2013). Therefore, these differences in myths of romantic love may imply a different influence on CDA for boys and girls, and may be used differently to justify their CDA behaviors with their partners, but more research is needed.

Existing empirical evidence highlights the complex influence of religious beliefs on myths of romantic love, sexist beliefs or intimate partner violence. Some studies have indicated that religious practice is related to sexist attitudes (Aliri et al., 2013; Nava-Reyes et al., 2018) and myths of romantic love (Nava-Reyes et al., 2018). Male perpetrators of violence against women may justify their behavior based on patriarchal attitudes rooted in religious beliefs, although there is variation across religions and levels of religiosity (Nason-Clark et al., 2018; Perales & Bouma, 2019), and women who experience intimate partner violence often use religious language to explain and tolerate it (Hosseini-Sedehi, 2016; Westenberg, 2017). However, other studies have found no differences in abuse rates between those attending and not attending church (Institute for Family Studies, 2019; Wang et al., 2009).

1.2. Bullying and sexting

Bullying has certain similarities with CDA, as it is a multi-causal form of violence that is repeated over time on a long-term basis, based on a power imbalance between the aggressor and the victim. It can be expressed in a direct (physical aggression or verbal aggression) or indirect/relational way (exclusion, social rejection, gossiping, cold shouldering or manipulating the victim's friends) (Viejo et al., 2020; Zych et al., 2019). Dating abuse and bullying are prevalent antisocial behaviors, and both emerge in the evolving peer group, which is crucial in the socialization process of adolescents. Dynamics of bullying, in which the peer group can reinforce aggressive behaviors of the perpetrators, might make violence appear socially desirable (Zych et al., 2019). Thus, the lessons learned in the peer relationship domain could be easily transferred to new contexts, such as romantic relationships. Some studies have shown that bullying is a strong predictor of offline dating abuse in adolescence (Muñoz-Fernández et al., 2019; Zych et al., 2019). Although studies analyzing the relation between bullying and cyber dating abuse have been scarce, it was found that adolescents who reported bullying victimization or perpetration were more likely to have engaged in cyber dating abuse perpetration (Van Ouytsel et al., 2017).

Similarly, victims of cyber dating abuse are at a heightened risk of being involved in other risk behaviors, including sending personal information to strangers, or sexting behaviors. Sexting includes the exchange of messages, images, photographs or videos with sexual content through different electronic media with some level of consent, between peers (Barrense-Dias et al., 2017). This phenomenon is divided into two categories, active sexting, including actions of creating, showing, posting, sending or forwarding, and passive sexting, with actions like asking, being asked and receiving (Barrense-Dias et al., 2017). It is a frequent practice among young people (Gil-Llario et al., 2021; Molla-Esparza et al., 2021) and a risk factor for CDA (Machimbarrena et al., 2018; Quesada et al., 2018). Gender differences have been found for the type of sexting practiced and, concerning reactions to sexts, girls appear to be more at risk of harm or embarrassment when receiving such messages (Barrense-Dias et al., 2017).

Although sexting can be practiced with peers (not necessarily involved in a romantic relationship) the exchange of images or videos with a highly erotic content, clearly insinuating poses or loaded with sensuality, are commonly carried out between couples as a demonstration of their mutual love and desire (Van Ouytsel et al., 2019). However, these practices can lead to highly dangerous outcomes. One of the greatest risks of sexting is the possible dissemination of the material sent by the person who has received it, without the permission of its owner. When done with the aim to harm or humiliate the other, it could be considered as bullying. A critical time in a dating relationship for that dissemination to happen is the breakup, especially if the ex-partner does not accept it. Some studies have explored the relationship between sexting and dating abuse, suggesting that adolescents involved in sexting practices were more likely to engage in dating abuse, more specifically in cyber dating abuse (Morelli et al., 2016; Quesada et al., 2018).

1.3. The current study and hypothesis

Considering the negative consequences of cyber dating abuse and the need to explore its relation to other behaviors, this study aimed to improve understanding of some variables related to perpetration and victimization of cyber dating abuse in adolescents of Spanish-speaking countries. To our knowledge, there is a lack of research on sexting and bullying differences depending on country and religiosity. Thus, the first objective of the study was to analyze CDA, bullying, sexting and myths of romantic love in adolescents for significant differences depending on sex (girls *vs* boys), country (Spain *vs* Latin American countries) and religiosity (high *vs* low religiosity). Three hypotheses were posited in relation to this objective:

Hypothesis 1. Given the nature of the myths of romantic love included in this study (jealousy, exclusivity, omnipotence of love), it is expected that boys will show greater adherence to these myths than girls (Cava et al., 2023; Jiménez-Picón et al., 2022); young males also adhere to traditional gender roles more frequently than young females (Nava-Reyes et al., 2018).

Hypothesis 2. Differences in myths of romantic love between countries are expected, as have been found in previous research (Bonilla-Algovia & Rivas-Rivero, 2021).

Hypothesis 3. Romantic myths will be observed more frequently in adolescents with high religiosity compared with low religiosity (Aliri et al., 2013; Nava-Reyes et al., 2018).

The second objective was focused on the relationships between bullying, sexting, demographics and the mediating role of myths of romantic love in predicting CDA among adolescents, using structural equation modeling (SEM). Specifically, the objective was to study the potential mediational effect of myths of romantic love between male gender and CDA. Since victims of cyber dating abuse are usually also perpetrators, the SEM model included two observed variables (victimization and perpetration) in the CDA factor. Three hypotheses were postulated in relation to this objective.

Hypothesis 4. Gender will have indirect effects on CDA through myths of romantic love, since, as has been seen in previous research, boys may show more myths of romantic love, and that these beliefs are positively related to tolerant attitudes toward abuse in dating relationships (Cava et al., 2023).

Hypothesis 5. Sexting will be a significant predictor of CDA, as previous studies have shown that adolescents involved in sexting practices were more likely to engage in dating abuse, more specifically in cyber dating abuse (Morelli et al., 2016; Quesada et al., 2018).

Hypothesis 6. It is expected that bullying will be a predictor of CDA. In previous studies, bullying has been associated with CDA (Van Ouytsel et al., 2017), and offline dating abuse (Muñoz-Fernández et al., 2019; Zych et al., 2019).

2. Method

2.1. Participants

Sample selection was carried out using the convenience sampling method. The sample consisted of 3264 in-school adolescents between the ages of 14 and 18 years at the time of recruitment (median = 15 years old), of which 52% were girls, from Spain (32%) and four Latin American countries (Argentina = 5%; Chile = 18%; Ecuador = 8%; Mexico = 25%, Peru = 12%). In relation to their academic performance, 40% of the participants had obtained good grades, 43% had passed all subjects, and 17% had failed one or more subjects. Over 95% lived in an urban area while 5% lived in a rural area. The vast majority of the adolescents were heterosexual, with just 3% being homosexual. Regarding their religious beliefs, 58.1% of the participants identified various Christian denominations as their current religion, 21.5% reported other non-Christian religions and 20.4% reported no religion.

2.2. Instrument and variables

The evaluation instrument used was the YOURLIFE project self-report questionnaire (Carlos et al., 2016; Lopez-del Burgo et al., 2021). This instrument has been used in several national and international surveys carried out among adolescents and based in other questionnaires (Cleland, 2001) (see Appendix).

2.2.1. Socio-demographic variables

Information concerning the socio-demographic data of the

participants was collected, among them sex, age, country of residence, school grades or religion. Regarding religion, two items were included in the questionnaire, what their religion or religious belief was and how often they went to the church of their religion.

2.2.2. Cyber dating abuse

This scale is composed of five items to measure CDA perpetration (e.g., "You control what your partner does on social media") and other five items in order to measure CDA victimization, including control and cyber sexual aggression behaviors. All possible responses to these items were formulated on a Likert scale with a range between 0 (*never*) and 6 (*very frequently*).

In CDA perpetration, the Kaiser-Meyer-Olkin (KMO) value of 0.754 indicated that the data were suitable for factor analysis and found to be significant in Bartlett's test of sphericity (χ^2 (10) = 6615.41, $p < .001$). The principal axis factoring extraction method was applied because data were significantly non-normally distributed. It revealed that the scale presented a one-dimensional structure, which explained 54.86% of the total variance of the scale with eigenvalues greater than 1.0. At the same time, in CDA victimization, the KMO value (0.744) indicated that the data were good for factor analysis, and Bartlett's test of sphericity was significant χ^2 (10) = 4039.04, $p < .001$. The principal axis factoring method explained most of the common variance and was robust to violations of the normality assumption (Lloret-Segura et al., 2014). The principal axis factoring method revealed that the scale presented a one-dimensional structure, explaining 56.05% of the total variance of the scale with eigenvalue greater than 1.0. The internal consistency of this scale was α = 0.83 for CDA perpetration and α = 0.80 for CDA victimization.

2.2.3. Sexting engagement

Sexting behaviors were categorized into active sexting and passive sexting. Active sexting, i.e., creating and sending sexual content, was measured with two items (e.g., "Send images of erotic/sexual content of yourself"). Passive sexting, including receiving and asking for sexual content, was also assessed with two items (e.g., "Receive images of erotic/sexual content in which someone you know appears"). All possible responses to the statements were recorded with three answer options (*Yes* = 1*; No;* = 0; *I don't know* = missing value). In relation to active sexting, the KMO value was 0.500, and the Bartlett's test of sphericity was significant χ^2 (1) = 108.82, $p < .001$. These results indicated that factor analysis was appropriate for these data. The principal components extraction method revealed that the scale presented a one-dimensional structure, which explained 59.44% of the total variance of the scale with eigenvalue greater than 1.0. The internal consistency of this scale (α = 0.32) was very poor. For passive sexting, the KMO value was 0.500, and Bartlett's test of sphericity was significant χ2 (1) = 501.51, $p < .001$. The principal components extraction method revealed a one-dimensional structure for the scale, which explained 69.82% of the total variance of the scale with eigenvalue greater than 1.0. The internal consistency of this scale (α = 0.57) was acceptable.

2.2.4. Myths of romantic love

Participants were asked about four beliefs regarding romantic love (e.g., "Love means to be jealous"). Responses were recorded with a Likert scale from 0 = *completely disagree* to 6 = *completely agree*. The KMO value of 0.685 indicated that the data were adequate for factor analysis, with Bartlett's test of sphericity significant χ^2 (6) = 1381.52, $p < .001$. The principal axis factoring method showed that the scale presented a one-dimensional structure, which explained 47.01% of the total variance of the scale with eigenvalue greater than 1.0. The internal consistency of this scale (α = 0.59) was acceptable.

2.2.5. Bullying experiences

To determine the participants' involvement in bullying behaviors, they were asked about perpetrated and suffered bullying, including

physical and psychological aggression. Two items were included, one about victimization ("I have suffered some kind of physical or psychological damage or aggression -been insulted, hit, belittled … - by someone from my school or high school"). The question about perpetration ("I have exerted/caused some type of damage or physical or psychological aggression –I have insulted, hit, belittled … - someone from my school or high school"). The response scale used was a 7-point Likert scale that asked how many times the situation had happened with a range between 0 (*never*) and 6 (*very frequently*). The KMO value of 0.50 was quite poor and Bartlett's test of sphericity was significant $\chi^2 (1) = 550.87, p < .001$. The principal axis factoring method showed the scale's one-dimensional structure, explaining 39.95% of the total variance of the scale with an eigenvalue of 0.80. The internal consistency of this scale ($\alpha = 0.56$) did not reach the desirable level ($\alpha \geq 0.70$).

2.3. Procedure

The data used in this study was collected as part of the YourLife Project, which was carried out in six countries. Educational centers were invited to take part in an email which also provided the link to the website designed to offer detailed information to the participants (http://www.proyectoyourlife.com/en/). Schools that agreed to participate were further informed about the process of the study and, on the specified date, each school administered the questionnaire in person during school time. The general design of the study was approved by the Ethics Committee of the University of Navarra, and each new participant school was asked to follow the project's specific ethical guidelines. The respective ethics committee of each participating country had access to the questionnaire prior to application.

Adolescents in the participating schools were verbally informed about its purpose; thereafter, written information was provided detailing the objectives of the project as well as their rights. The framework questionnaire was administered after parental permission for this research was received. Participants filled out a self-report questionnaire in which they did not provide names or any other personally identifiable information. The surveys were designed to ensure this anonymous participation. No incentive for participation was offered, but each school was sent a report with the overall results of their center, and the implementation of specific educational programs was encouraged to prevent the problems identified through the study. The data of the present study were collected before the COVID- 19 pandemic, and the detailed data collection procedure can be found in a previous publication (Lopez-del Burgo et al., 2021).

2.4. Data analysis

The prevalence rate of CDA was calculated on the basis of participants scoring 1 (occasionally) or more in any of the questionnaire items, as well as the prevalence rates of sexting. Subsequently, analyses of the differences in the means of CDA were performed by sex (girls *vs* boys), country (Spain *vs* Latin America countries) and religiosity (high religiosity *vs* low religiosity). The religiosity median was used to dicotomize this variable (below the median for the "low religiosity" group and all cases above the median for the "high religiosity" group). The CDA perpetration index was calculated (Perpetration+1)/(Victimization+1).

The Mann-Whitney *U* test was applied as a nonparametric alternative to the independent samples *t*-test because the assumption of normality was not fulfilled and some variables were ordinal. The effect size for Mann-Whitney-U was calculated with the formula

$$r = \frac{|z|}{\sqrt{n}}$$

The values for skew and kurtosis between −2 and +2 are considered acceptable in order to prove normal univariate distribution (George & Mallery, 2010). The data were not multivariate normal (Mardia's

normalized coefficient = 182.55). Non-normality was substantially driven by three variables which had highly non-normal marginal distributions. CDA perpetration variable had a skew of 4.92 and kurtosis of 31.78, whereas CDA victimization had a skew of 3.04 and kurtosis of 11.09. One item of the myths variable had a skew of 3.51 and kurtosis of 12.87. Non-normal estimator's correction was used, specifically elliptical statistical methodology (ERLS). Goodness-of-fit of the model was assessed with elliptical theory. This theory assumes that variables are symmetrically distributed, but may perhaps have excess (or less) kurtosis compared to a normal distribution (Bentler, 2006). This methodology is incorporated into EQS version 6.3. A number of fit indices were calculated, including: (a) the overall χ^2, (b) the comparative fit index (CFI), (c) the root mean square error of approximation (RMSEA). The most commonly used criterion for a good fit is CFI ≥ 0.95, and RMSEA ≤ 0.06 (Hu & Bentler, 1999).

Confirmatory factor analysis (CFA) assessed the adequacy of the hypothesized measurement model and the associations among the latent variables: Cyber-dating abuse (indicators: perpetration and victimization), Bullying (indicators: perpetration and victimization), Sexting (indicators: active sexting and passive sexting), and Myths of romantic love (indicators: four items). In the SEM model, Bullying, Sexting and Myths of romantic love were predictors of CDA. A significant correlation was expected between Bullying and Sexting. We did not rule out the possibility of demographics (sex, country and religiosity) also predicting the outcome of CDA and examined the previous results of means comparison based on effect size to assess whether further parameters should be added to the model for fit improvement and further explication. Since our data are cross-sectional, we also tested two alternative models in which latent factors were used as predictors of CDA victimization and CDA perpetration, respectivley.

3. Results

3.1. Prevalence rates of cyber dating abuse and sexting

Cyber dating abuse perpetration prevalence was 28.6%, and higher in Latin American countries (30.07%) than Spain (24.4 %), $\chi^2 = 9.91, p = .002$. Cyber dating abuse victimization revealed a total prevalence of 39.2%, with significant differences for sex (boys 41.8%; girls 37.3%; $\chi^2 = 4.68, p = .031$). It also showed higher prevalence in Latin American countries (42.4%) than Spain (33.2%), $\chi^2 = 18.04, p < .001$. The cyber dating abuse percentages according to four categories (without violence 55%, perpetration only 6%, victimization only 17%, bidirectional violence 22%) indicate that bidirectional violence was the most frequent.

Regarding active sexting, a total prevalence of 13.2% was found. Participants with high religiosity (10.7%) were less involved in sexting behaviors than those with low religiosity (16.02%), $\chi^2 = 12.58, p < .001$. Regarding passive sexting, a total prevalence of 24.8% was found, with some significant differences for sex (boys 32%; girls 24.4%; $\chi^2 = 20.69, p < .001$), and religiosity (high religiosity 21%; low religiosity 29.4%; $\chi^2 = 17.67, p < .001$).

3.2. Comparisons of means by sex, country origin and religiosity

Table 1 shows the differences of means of the sex-based variables. The index of CDA perpetration was slightly higher in girls than boys ($r = 0.052$). It should be noted that girls showed less passive sexting ($r = 0.093$) and less bullying perpetration ($r = 0.146$), as well as more bullying victimization ($r = 0.079$). Boys presented more myths of romantic love ($r = 0.228$).

In Table 2, the differences of means of the country-based variables (Spain *vs*. Latin American countries) are shown. There were no differences in sexting engagement and bullying victimization between Spain and Latin American countries. It is noteworthy that Spanish adolescents reported significantly lower figures for CDA perpetration ($r = 0.073$),

Table 1
Comparisons of means of the study variables by sex (with standard deviations in parentheses).

Variables	Range	Girls (n = 1548)	Boys (n = 1658)	U Mann-Whitney	Effect size
CDA perpetration	0–30	1.10 (2.86)	1.54 (4.14)	1,270,391.5	.009
CDA victimization	0–30	2.03 (4.34)	2.43 (4.58)	583,925.5**	.055
Index of CDA perpetration	0.03–31	1.08 (1.30)	0.96 (0.82)	581,471.5*	.052
Active sexting	0–2	0.15 (0.46)	0.19 (0.39)	1,060,070	.030
Passive sexting	0–2	0.30 (0.57)	0.43 (0.68)	953,712***	.093
Bullying perpetration	0–6	0.78 (1.31)	1.15 (1.52)	1,119,932***	.146
Bullying victimization	0–6	1.54 (1.86)	1.22 (1.68)	1,049,816.5***	.079
Myths of romantic love	0–24	3.16 (3.72)	5.06 (4.67)	842,758***	.228

Note: ***$p < .001$; **: $p < .01$; *: $p < .05$.

Table 2
Comparison of means of the study variables by country (with standard deviations in parentheses).

Variables	Range	Spain (n = 1040)	Latin A. (n = 2224)	U Mann-Whitney	Effect size
CDA perpetration	0–30	0.99 (3.22)	1.50 (3.79)	550,975***	.073
CDA victimization	0–30	1.91 (4.38)	2.42 (4.66)	521,896***	.087
Index of CDA perpetration	0.03–31	1.05 (0.95)	1.01 (1.17)	550,802	.036
Active sexting	0–2	0.15 (0.38)	0.18 (0.36)	965,166.5	.023
Passive sexting	0–2	0.38 (0.62)	0.37 (0.63)	919,800	.023
Bullying perpetration	0–6	0.83 (1.28)	1.02 (1.49)	1,087,945.5*	.043
Bullying victimization	0–6	1.39 (1.82)	1.39 (1.82)	1,060,867	.014
Myths of romantic love	0–24	3.61 (3.99)	4.30 (4.50)	945,350.5***	.071

Note: *Latin A.*: Latin American countries; ***$p < .001$; **: $p < .01$; *: $p < .05$.

CDA victimization ($r = 0.087$), bullying ($r = 0.043$), and also showed less belief in myths of romantic love ($r = 0.071$) than participants from Latin American countries.

Table 3 depicts the differences of means based on religiosity (high *vs.* low). Sexting and myths of romantic love showed significant differences, as participants with high religion showed less active sexting practice ($r = 0.083$), passive sexting ($r = 0.097$) but more myths of romantic love ($r = 0.108$).

3.3. Structural equation modeling

The confirmatory factor analysis included the three latent factors and two demographic variables (male and religiosity). All factor loadings and latent factors were significant ($p < .001$). Fit indices for the CFA model which required no model modification were all acceptable ERLSχ^2 (41, N = 3264) = 81.04; CFI = 0.970; NNI = 0.952; IFI = 0.971; RMSEA = 0.029 [90% CI 0.020 - 0.039].

The structural model is presented in Fig. 1. This model had good fit statistics: ERLSχ^2 (48, N = 3264) = 110.64; CFI = 0.953; NNI = 0.936; IFI = 0.954; RMSEA = 0.034 [90% CI 0.026 - 0.042]. Eleven percent of the variance in cyber dating abuse was explained. A direct effect of Sexting ($\beta = 0.17$, $p < .001$) and of Myths of romantic love ($\beta = 0.24$, p < .001) on Cyber dating abuse was found. However, Bullying was not a significant predictor of CDA ($\beta = 0.09$, $p > .05$). The level of religiosity was a significant predictor of Sexting ($\beta = 0.13$, p > .05). At the same time, Bullying and Sexting were significantly and positively associated ($r = 0.23$, $p < .001$). Being male was related to showing more Myths of romantic love ($\beta = 0.32$, $p < .001$), Sexting ($\beta = 0.17$, $p < .05$), and Bullying ($\beta = 0.17$, $p < .05$). Mediation analysis using SEM showed a significant indirect effect of male sex on CDA through Myths of romantic love and Sexting ($\beta = 0.10$, $p < .001$). Previously, we ran a SEM model containing male sex associated with CDA, and country with Myths of romantic love. However, male sex did not have a direct effect on CDA, ($\beta = 0.06$, $p > .05$) nor did country on Myths of romantic love ($\beta = 0.02$, $p > .05$), or religiosity ($\beta = 0.03$, $p > .05$), ERLSχ2 (57, N = 3264) = 134.19; CFI = 0.947; NNI = 0.927; IFI = 0.948; RMSEA = 0.035 [90% CI 0.027 - 0.042]; R^2 = 0.11.

The first alternative model changing the cyber dating abuse factor for CDA perpetration had good fit statistics: ERLSχ^2 (39, N = 3264) = 94.65; CFI = 0.952; NNI = 0.933; IFI = 0.953; RMSEA = 0.035 [90% CI 0.026 - 0.044]; R^2 = 0.10. The second alternative model changing the latent variable cyber dating abuse for CDA victimization had adequate fit statistics: ERLSχ^2 (39, N = 3264) = 97.741; CFI = 0.950; NNI = 0.930; IFI = 0.951; RMSEA = 0.036 [90% CI 0.027 - 0.045]; R^2 = 04. Although both models fit well, the explained variance was lower than the main SEM model (R^2 = 0.11).

4. Discussion

The continuous development of information and communication technologies and their growing use by adolescents in their relationships favors risky behaviors online. Nowadays, virtual interactions between partners are frequent and, in this context, cyber dating abuse can occur. To the best of our knowledge, this is one of the first studies focused on analyzing cyber dating abuse, myths of romantic love, sexting engagement, and bullying depending on sex, country and religion. Findings suggest that males show more sexting engagement and bullying perpetration, and assume more myths of romantic love. Furthermore, adolescents with high religiosity presented less sexting engagement than those with low religiosity. According to means comparison analyses, Latin American adolescents adopted slightly more myths of romantic

Table 3
Comparisons of means of the study variables by religiosity (with standard deviations in parentheses).

Variables	Range	High religiosity (n = 1134)	Low religiosity (n = 941)	U Mann-Whitney	Effect size
CDA perpetration	0–30	1.51 (4.22)	1.26 (3.32)	527,701.5	.006
CDA victimization	0–30	2.17 (4.74)	2.31 (4.54)	241,141	.016
Index of CDA perpetration	0.03–31	1.01 (0.83)	1.04 (0.93)	241,461.5	.007
Active sexting	0–2	0.12 (0.37)	0.19 (0.46)	413,3160***	.083
Passive sexting	0–2	0.27 (0.56)	0.38 (0.64)	401,845***	.097
Bullying perpetration	0–6	0.91 (1.38)	0.91 (1.43)	511,740	.010
Bullying victimization	0–6	1.27 (1.71)	1.46 (1.86)	485,939	.039
Myths of romantic love	0–24	4.59 (4.53)	3.95 (4.14)	438,140**	.108

Note: [a]: Chi-square analysis; ***$p < .001$; **: $p < .01$; *: $p < .05$.
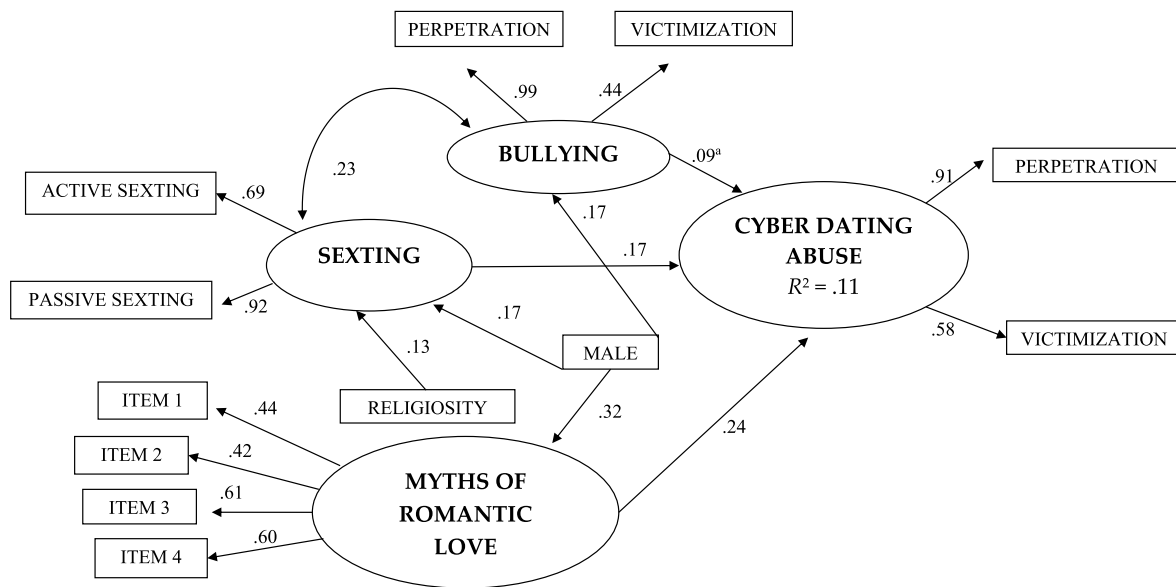
Fig. 1. Structural model predicting CDA based on 3,2643 participants from community population. All estimated parameters are standardized. All factor loadings, correlation and regression coefficients are significant at p < .05, except [a] p > .05.

love than Spanish adolescents. The second objective of the present study was to investigate the explanatory factors of CDA, examining variables associated with bullying, sexting and myths of romantic love, using SEM models. The results revealed that CDA is predicted by sexting, while myths of romantic love had mediating effects.

According to the SEM model, there were no gender differences in CDA. Contrary to what is expected in society, several studies have also reported a higher victimization prevalence in men compared to women (Durán-Segura & Martínez-Pecino, 2015; García-Sánchez et al., 2017; Monteiro et al., 2023). However, Martínez-Soto and Ibabe (2023) in their meta-analysis found similar CDA rates in males and females. One explanation for these results could be that adolescents react differently to these behaviors, boys being more reactive than girls to control and monitoring behaviors, and tend to identify and report them more often (Durán-Segura & Martínez-Pecino, 2015; Monteiro et al., 2023). Considering the absence of siginificative differences in perpetration prevalence rates between boys and girls, another explanation that should be considered is gender symmetry, which, according to Straus (2011), means equal rates of perpetration of non-sexual assaults by men and women. The existence of bidirectionality in CDA should also be taken into account in order to explain its abuse patterns. This means that victims, as a coping mechanism to deal with the abuse they suffer, could also become perpetrators and vice versa (Monteiro et al., 2023). Thus, further research should include the deeper investigation of gender differences and the figure of the victimized offender.

Regarding gender differences in romantic myths, as expected, boys showed greater adherence to romantic myths than girls did, as found in previous similar studies (Bisquert-Bover et al., 2019; Carbonell Marqués & Mestre, 2019; Cava et al., 2023; Jiménez-Picón et al., 2022). Carbonell Marqués and Mestre (2019) explained that boys internalized more myths of romantic love (omnipotent love, love as possession, total dedication and giving up intimacy) than girls did. The reasoning behind these results may be the greater assumption by men of traditional gender roles (Nava-Reyes et al., 2018) and more sexist beliefs than women (Ibabe et al., 2016). Results also evidenced that boys appear to be more engaged in sexting than girls, in line with some previous studies (Gámez-Guadix et al., 2017; Gassó et al., 2020; Quesada et al., 2018). As with cyber dating abuse, there is no consensus about gender differences in sexting engagement (Barrense-Dias et al., 2017). The results of this study could be explained by the fact that boys usually receive more sexual content from their peers without sending content back and are

more used to pressuring girls to send sexts and therefore to receiving their sexual content (Gassó et al., 2020; Van Ouytsel et al., 2017). It should also be noted that previous research has found that, even if boys practice more sexting or if there are no differences between boys and girls in prevalence, girls tend to be more judged and be considered more pejoratively if they engage in sexting, but also if they do not (Barrense-Dias et al., 2017).

As it was hypothesized, differences in myths of romantic love between countries were found. Latin American adolescents showed slightly greater assumption of myths of romantic love than Spanish adolescents did, consistent with previous research. An investigation carried out with a sample of 203 Latin American students resident in Spain found that myths of romantic love were related to the Gender Inequality Index of their country of origin, so that the presence of myths of romantic love increased with greater gender inequality (Carbonell Marqués & Mestre, 2019). Along these lines, Bonilla-Algovia and Rivas-Rivero (2021) reported that Central American countries (El Salvador and Nicaragua) presented higher scores on myths of romantic love assumption than South American countries (eg. Argentina, Chile) or Spain.

Regarding religiosity, myths of romantic love were expected to exist more often in adolescents with a higher level of religiosity. However, SEM model results did not show any relationship between religiosity and myths of romantic love. Nevertheless, in a similar study, Nava-Reyes et al. (2018) found that religious beliefs were related to myths of romantic love and benevolent sexism in Mexican adolescents. Studies that have analyzed the relationship between religiosity and ambivalent sexism in Spain have shown that sexism, especially benevolent sexism, is positively related to religiosity (Glick et al., 2002). Along these lines, Aliri et al. (2013) found that adolescents from religious schools had higher scores on ambivalent sexism than adolescents from non-religious schools, although it should be noted that the effect size was small. The possible link between myths of romantic love (or sexist attitudes) and high levels of religiosity could be explained by the role of religions in maintaining traditional gender roles and stereotypes. However, it is interesting to note that in the present study adolescents with high religiosity presented less sexting engagement than those with low religiosity. One possible explanation for this finding is that religion impacts individual adolescents' sexual behavior through mechanisms of social support and social control (Rostosky et al., 2004). Indeed, adolescents with high religiosity present less risky sexual behaviors (Haglund &

Fehring, 2010).

As was also expected, gender had indirect effects on CDA through myths of romantic love based on the main SEM model. Among males, the belief in myths of romantic love was higher, and these beliefs were positively related to CDA. Moreover, adolescents with greater internalization of myths of romantic love obtained higher scores for CDA victimization and perpetration. In previous studies, these romantic beliefs have been positively related to online control behaviors (Borrajo et al., 2015), offline aggression (Papp et al., 2017), and to tolerant attitudes toward abuse in dating relationships (Cava et al., 2023). This means that the adolescents who internalize myths of romantic love could more easily perpetrate and tolerate some abusive behaviors in their dating relationships (Cava et al., 2023), which could also imply a greater legitimization of violence against women (Bajo-Pérez, 2020; Lelaurain et al., 2018). To deal with the problem of CDA, it is necessary to raise awareness among young people and adolescents and the prevention of gender violence through campaigns developed by different professionals specialized in these issues and the use of technologies.

As hypothesized, sexting engagement was a significant predictor of CDA. This result is consistent with the findings of other studies which also indicate that adolescents involved in sexting practices were more likely to engage in cyber dating abuse (Morelli et al., 2016; Quesada et al., 2018). These two types of practices happen in the same virtual context and are based on the same technologies. In fact, sexting images and videos, when shared with third parties without the partner's consent, in a dating relationship context, would constitute a form of cyber dating abuse, depending on its conceptualization and dimensions (Martínez-Soto & Ibabe, 2023).

It was predicted that bullying would be related to CDA but our findings did not confirm this hypothesis. However, several studies focused on the relationship between traditional forms of dating violence and bullying engagement have found a positive relationship (Foshee et al., 2014; Lopez-del Burgo et al., 2021; Muñoz-Fernández et al., 2019; Niolon et al., 2015; Zych et al., 2019). It seems that abusive behaviors acquired within the peer group can be easily reproduced in the new context of an intimate relationship (Zych et al., 2019), although the present study did not include cyberbullying on the scale, which could be a limitation. Thus, CDA prevention should also promote the development of healthy peer relationships, off-line as well as online, as these forms of abusive relationships seem to be related.

4.1. Limitations

The present study has some limitations that should be considered when interpreting the results. Firstly, its cross-sectional nature must be taken into account. This does not allow conclusions to be drawn about causal relationships between the analyzed variables. Future longitudinal research is needed to explore the causal relationships between myths of romantic love, sexting, bullying, and cyber dating abuse. Another limitation relates to the assessment of the study variables, which should fit completely with theoretical understanding, and be measured with validated instruments with evidence of their psychometric properties. Moreover, the exclusive use of self-report measures may have affected the answers due to participants' own perceptions or the possible social desirability of their responses. It should also be considered that the internal consistency coefficients of several variables did not reach the desired level ($\alpha \geq .70$), but the use of these measures was justified by the reduced number of scale items of the variables. According to Dall'Oglio et al. (2010), a Cronbach α of 0.50 can be legitimate and acceptable with a short scale, but the scale measuring active sexting has very low internal consistency in the sample. Despite these limitations, the findings provide valuable insight for school context prevention, incorporating information about healthy peer relationships within cyber dating abuse prevention efforts.

5. Conclusions

The present study explored how cyber dating abuse is associated with other types of interpersonal violence, risky online behaviors and myths of romantic love. Results support the direct effect of sexting engagement on cyber dating abuse, as well as the mediating effect of myths of romantic love. These findings highlight the need for future research to explore how CDA and sexting interact and potentially feed each other, with more time-sensitive analyses to determine the exact nature of these associations.

Previous research has highlighted the existence of polyvictimization among adolescents and young people, especially when these types of violence or abuse share characteristics (bullying and cyberbullying, or dating abuse and cyber dating abuse). This is in line with the idea that behaviors that occur offline and online often overlap and that the engagement in one type of violence or abuse comes with a greater risk of engaging in another (Caridade & Braga, 2020; Cava, Buelga, et al., 2020; Espino et al., 2022; Machimbarrena et al., 2018; Van Ouytsel et al., 2017). This could mean that violence could be normalized by adolescents and young people, both between peers and partners.

This information is relevant for parents, caregivers, school teachers and practitioners to be aware of and to understand the problems adolescents face in the development of their interpersonal relationships. These findings emphasize the importance for prevention programs to take a broader approach, including strategies to help them identify any type of abusive behavior both among peers and dating partners, rather than focusing exclusively on a single type of violence. In addition, CDA prevention programs should promote the development of healthy peer relationships offline as well as online, as these forms of abusive relationships seem to be related. These programs should also include, on the one hand, awareness about the responsible use of the Internet. For example, it is important to make adolescents and young people aware of all the risks that sexting can involve. One of the greatest risks of sexting is the possible dissemination of the photos or videos forwarded by the initial recipient without the permission of their owner. In a dating relationship, a critical time for such dissemination is the breakup, as a form of revenge. It is also important to note that the dissemination of sexts without the owner's consent, besides being a crime, can cause a lot of emotional damage to the victim, and can have other outcomes, such as suffering any type of extortion, blackmail or sexual harassment. On the other hand, they should also include the analysis of myths of romantic love in order to make adolescents understand how they influence their perceptions of intimate relationships. Given that adolescents have their first romantic relationships at an ever earlier age, and that first relationships influence later ones, these programs should be implemented during early adolescence.

CRediT authorship contribution statement

Ainize Martínez Soto: Conceptualization, Formal analysis, Visualization, Writing – original draft, Writing – review & editing. **Cristina Lopez-del Burgo:** Funding acquisition, Resources, Investigation, Data curation, Project administration, Supervision, Writing – review & editing. **Aranzazu Albertos:** Funding acquisition, Resources, Project administration, Writing – review & editing. **Izaskun Ibabe:** Conceptualization, Methodology, Software, Data curation, Formal analysis, Writing – original draft, Supervision, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

Appendix

YOURLIFE QUESTIONNAIRE

We would like to thank you for helping us with this survey. This is an international study to better understand people your age. This survey is ANONYMOUS. You don't have to write your name. No one will be able to know who the answers correspond to.

The survey is also VOLUNTARY. If you don't want to answer it, you can leave the room whenever you want, or you can wait without answering it until the others finish. None of these decisions will have consequences for you. If you do not feel comfortable answering any question, you can choose the option "I do not want to answer".

This survey IS NOT A TEST. We are not going to rate you, so we encourage you to answer as honestly as possible. Mark only one answer box for each question. If it is difficult to choose the answer, mark the one that is closest to what you think or do most of the time.

In some questions, the answers are not equally healthy or recommendable. We include them because there may be people who are in those circumstances.

It will take you about 20 min to answer the survey.

THANK YOU FOR YOUR COLABORATION!

Please fill in the following socio-demographic data.

Age:　　　　　Gender: Male ☐ Female ☐　　　　Country of residence:
　　　　　　　　I don't want to answer ☐

The last school year:

☐ I failed one or more subjects
☐ I passed everything
☐ I got good grades

Do you have a partner or date someone? (We mean a "special" relationship with someone, different from the one you have with other friends).

☐ No, I have never had a partner
☐ Not now, but I have had a partner or dated someone before ☐ Yes

How long have you been dating or were you approximately dating this partner?

☐ Less than 1 month
☐ 1 month
☐ 2–3 months
☐ 4–5 months
☐ 6 months or more

Your partner is/was:

☐ Male
☐ Female
☐ I don't want to answer

What is your religion or religious belief?

☐ I don't believe in God/I don't know if God exists
☐ Catholic
☐ Protestant/Evangelical
☐ Orthodox
☐ Other Christian religion
☐ Islamic
☐ Hinduism
☐ Buddhism
☐ Ethnic religions
☐ Traditional Chinese religion (Taoism, Confucianism)
☐ Shinto
☐ Sikhism
☐ Judaism
☐ Other

How often do you go to the church of your religion?

☐ Never
☐ Hardly never
☐ A few times a year
☐ Once a month

(*continued*)

☐ Once a week
☐ More than once a week

CDA victimization

The statements presented below refer to behaviors that your partner may have done through new technologies (Internet, social networks, email, etc., as well as mobile phone applications such as WhatsApp, SMS, calls).

Please mark how often YOUR PARTNER has or has had any of these behaviors with you (from a minimum of 0: "never" to a maximum of 6: "very often").

	0	1	2	3	4	5	6
Calls or sends messages continuously to control what you do, where or who you are with	0	1	2	3	4	5	6
Has checked your mobile without your permission	0	1	2	3	4	5	6
Control what you do on social media	0	1	2	3	4	5	6
Forces you to send him/her photos or videos of you with erotic/sexual content	0	1	2	3	4	5	6
Sends you photos or videos of him/herself with erotic/sexual content even if you have told him/her that you do not want to receive them	0	1	2	3	4	5	6

CDA perpetration

The statements presented below refer to behaviors that you may have done through new technologies (Internet, social networks, email, etc., as well as mobile phone applications such as WhatsApp, SMS, calls).

Please mark how often YOU have or have had any of these behaviors with your partner (from a minimum of 0: "never" to a maximum of 6: "very often").

	0	1	2	3	4	5	6
You continuously call or send messages to control what he/she does, where or who he/she is with.	0	1	2	3	4	5	6
You have checked his mobile without his permission	0	1	2	3	4	5	6
You control what he/she does on social media	0	1	2	3	4	5	6
You force him/her to send you photos or videos of him/her with erotic/sexual content	0	1	2	3	4	5	6
You send him/her photos or videos of you that contain sexual content even though he/she has told you that he/she does not want to receive them	0	1	2	3	4	5	6

Sexting experiences

In the last 12 months, have you ever done any of these activities?

Active sexting			
Sent images of erotic/sexual content in which you appear	No	Yes	I don't know
Sent images of erotic/sexual content featuring someone you know	No	Yes	I don't know
Asked someone to send you an image of them with erotic/sexual content	No	Yes	I don't know
Passive sexting			
Received images of erotic/sexual content in which someone you know appears	No	Yes	I don't know

Bullying experiences

Mark how often you have been in any of these situations (from a minimum of 0: "never" to a maximum of 6: "very often")

	0	1	2	3	4	5	6
Bullying victimization							
I have suffered some type of physical or psychological damage or aggression (been insulted, hit, belittled …) by someone from my school	0	1	2	3	4	5	6
Bullying perpetration							
I have caused/inflicted some type of damage or physical or psychological aggression (I have insulted, hit, belittled …) to someone from my school	0	1	2	3	4	5	6

Myths of romantic love

We would like to know if you agree with the following statements about love (from a minimum of 0: "totally disagree" to a maximum of 6: "totally agree")

Happiness can only be possible being in a relationship.	0	1	2	3	4	5	6
Love implies being jealous.	0	1	2	3	4	5	6
Love means continuing with a partner who does not suit you, because they need you to change.	0	1	2	3	4	5	6
Love implies abandoning your own interests, friendships, etc. To dedicate yourself only to your partner.	0	1	2	3	4	5	6

References

Aliri, J., Garaigordobil, M., & Martínez-Valderrey, V. (2013). Sexismo y características del centro escolar: Diferencias en función del tipo de centro. [Sexism and school features: Differences in terms of type of school]. *Revista de Investigación Educativa, 31* (2), 360. https://doi.org/10.6018/rie.31.2.159191

Bajo-Pérez, I. (2020). La normalización de la violencia de género en la adultez emergente a través del mito del amor romántico. [The normalization of gender violence in emerging adulthood through the myth of romantic love]. *Cuestiones de género: De la Igualdad y la Diferencia, 15*, 253–268. https://doi.org/10.18002/cg.v0i15.6045

Barrense-Dias, Y., Berchtold, A., Surís, J. C., & Akre, C. (2017). Sexting and the definition issue. *Journal of Adolescent Health, 61*, 544–554. https://doi.org/10.1016/j.jadohealth.2017.05.009

Bentler, P. M. (2006). *EQS 6, structural equations program manual*. Encino, CA: Multivariate Software Inc. http://www.econ.upf.edu/~satorra/CourseSEMVienna2010/EQSManual.pdf.

Bisquert-Bover, M., Giménez-García, C., Gil- Juliá, B., Martínez-Gómez, N., & Gil-Llario, M. (2019). Mitos del amor romántico y autoestima en adolescentes [Myths of romantic love and self-esteem in adolescents]. *Revista INFAD de Psicología. International Journal of Developmental and Educational Psychology, 5*(1), 507–518. https://doi.org/10.17060/ijodaep.2019.n1.v5.1633

Bonilla-Algovia, E., & Rivas-Rivero, E. (2021). Mitos románticos en docentes en formación de España y Latinoamérica. [Romantic myths among teachers in training from Spain and Latin America]. *América Latina Hoy, 89*, 61–80. https://doi.org/10.14201/alh.26281

Borrajo, E., Gámez-Guadix, M., & Calvete, E. (2015). Cyber dating abuse: Prevalence, context, and relationship with offline dating aggression. *Psychological Reports, 116* (2), 565–585. https://doi.org/10.2466/21.16.PR0.116k22w4

Brown, C., Sanci, L., & Hegarty, K. (2021). Technology-facilitated abuse in relationships: Victimization patterns and impact in young people. *Computers in Human Behavior, 124*. https://doi.org/10.1016/j.chb.2021.106897

Calvete, E., Fernández-González, L., Orue, I., Machimbarrena, M., & González-Cabrera, J. (2021). Validación de un cuestionario para evaluar el abuso en relaciones de pareja en adolescentes (CARPA), sus razones y las reacciones [Validation of a questionnaire to assess abuse in dating relationships in Spanish adolescents (CARPA): Reasons and reactions]. *Revista de Psicología Clínica con Niños y Adolescentes, 8*(1), 60–69. https://doi.org/10.21134/rpcna.2021.08.1.8

Carbonell Marqués, A., & Mestre, M. V. (2019). Sexismo, amor romántico y desigualdad de género. Un estudio en adolescentes latinoamericanos residentes en España. [Sexism, romantic love and gender inequality. A study of Latin American adolescents living in Spain]. *América Latina Hoy, 83*, 59–74. https://doi.org/10.14201/alh2019835974

Caridade, S., & Braga, T. (2020). Youth cyber dating abuse: A meta-analysis of risk and protective factors. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 14* (3). https://doi.org/10.5817/CP2020-3-2. Article 2.

Caridade, S., e Sousa, H. F. P., & Dinis, M. A. P. (2020). Cyber and offline dating abuse in a Portuguese sample: Prevalence and context of abuse. *Behavioral Sciences, 10*(10), 152. https://doi.org/10.3390/bs10100152

Carlos, S., Osorio, A., Calatrava, M., Lopez-del Burgo, C., Ruiz-Canela, M., & de Irala, J. (2016). Project YOURLIFE (What young people think and feel about relationships, love, sexuality, and related risk behavior): Cross-sectional and longitudinal protocol. *Frontiers in Public Health, 28*(4). https://doi.org/10.3389/fpubh.2016.00028

Cava, M.-J., Buelga, S., Carrascosa, L., & Ortega-Barón, J. (2020). Relations among romantic myths, offline dating violence victimization and cyber dating violence victimization in adolescents. *International Journal of Environmental Research and Public Health, 17*, 1551. https://doi.org/10.3390/ijerph17051551

Cava, M.-J., Castillo, I., Tomás, I., & Buelga, S. (2023). Romantic myths and cyber dating violence victimization in Spanish adolescents: A moderated mediation model. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 17*(2). https://doi.org/10.5817/CP2023-2-4. Article 4.

Cava, M.-J., Martínez-Ferrer, B., Buelga, S., & Carrascosa, L. (2020). Sexist attitudes, romantic myths, and offline dating violence as predictors of cyber dating violence perpetration in adolescents. *Computers in Human Behavior, 111*. https://doi.org/10.1016/j.chb.2020.106449

Cleland, J. (2001). *Illustrative questionnaire for interview-surveys with young people*. World Health Organization.

Dall'Oglio, A. M., Rossiello, B., Coletti, M. F., Caselli, M. C., Ravà, L., di Ciommo, V., Orzalesi, M., Giannantoni, P., & Pasqualetti, P. (2010). Developmental evaluation at age 4: Validity of an Italian parental questionnaire. *Journal of Paediatrics and Child Health, 46*(7–8), 419–426. https://doi.org/10.1111/j.1440-1754.2010.01748.x

Durán-Segura, M., & Martínez-Pecino, R. (2015). Ciberacoso mediante teléfono móvil e Internet en las relaciones de noviazgo entre jóvenes. [Cyberbullying trough mobile phone and the internet in dating relationships among youth people]. *Comunicar, 44*, 159–167. https://doi.org/10.3916/C44-2015-17

Espino, E., Ortega-Rivera, J., Ojeda, M., Sánchez-Jiménez, V., & Del Rey, R. (2022). Violence among adolescents: A study of overlapping of bullying, cyberbullying, sexual harassment, dating violence and cyberdating violence. *Child Abuse & Neglect, 134*, Article 105921. https://doi.org/10.1016/j.chiabu.2022.105921

Ferrer Pérez, V., & Bosch Fiol, E. (2013). Del amor romántico a la violencia de género. Para una coeducación emocional en la agenda educativa. [From romantic love to gender violence. For an emotional coeducation in the educational agenda]. *Profesorado: Revista de Currículum y Formación de Profesorado, 17*(1), 105–122. https://www.ugr.es/~recfpro/rev171ART7.pdf.

Foshee, V. A., Reyes, L. M., Agnew-Brune, C. B., Simon, T. R., Vagi, K. J., Lee, R. D., & Suchindran, C. (2014). The effects of the evidence-based safe dates dating abuse prevention program on other youth violence outcomes. *Prevention Science, 15*, 907–916. https://doi.org/10.1007/s11121-014-0472-4

Gámez-Guadix, M., de Santisteban, P., & Resett, S. (2017). Sexting among Spanish adolescents: Prevalence and personality profiles. *Psicothema, 29*(1), 29–34. https://doi.org/10.7334/psicothema2016.222

García-Sánchez, P. V., Guevara-Martínez, C., Rojas-Solís, J. L., Peña-Cárdenas, F., & González Cruz, V. G. (2017). Apego y ciber-violencia en la pareja de adolescentes. [Attachment and cyber-violence in dating of teenage]. *Revista INFAD De Psicología. International Journal of Developmental and Educational Psychology, 2*(1), 541–550. https://doi.org/10.17060/ijodaep.2017.n1.v2.879

Gassó, A. M., Mueller-Johnson, K., & Montiel, I. (2020). Sexting, online sexual victimization, and psychopathology correlates by sex: Depression, anxiety, and global psychopathology. *International Journal of Environmental Research and Public Health, 17*(3), 1018. https://doi.org/10.3390/ijerph17031018

George, D., & Mallery, M. (2010). *SPSS for windows step by step: A simple guide and reference* (10a ed.). Pearson, 17.0 update.

Gil-Llario, M., Gil-Juliá, B., Morell-Mengual, V., Cárdenas-López, G., & Ballester-Arnal, R. (2021). Analysis of demographic, psychological and cultural aspects associated with the practice of sexting in Mexican and Spanish adolescents. *International Journal of Intercultural Relations, 82*, 197–206.

Glick, P., Lameiras, M., & Castro, Y. R. (2002). Education and catholic religiosity as predictors of hostile and benevolent sexism toward women and men. *Sex Roles, 47*, 433–441. https://doi.org/10.1023/A:1021696209949

Haglund, K. A., & Fehring, R. J. (2010). The association of religiosity, sexual education, and parental factors with risky sexual behaviors among adolescents and young adults. *Journal of Religion and Health, 49*(4), 460–472. https://doi.org/10.1007/s10943-009-9267-5

Hosseini-Sedehi, N. (2016). *Listening to unheard voices: Muslim Canadian immigrants' perceptions and experiences of domestic violence and seeking help* [Doctoral dissertation, University of Toronto]. University of Toronto Research Repository https://tspace.library.utoronto.ca/handle/1807/76434.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Ibabe, I., Arnoso, A., & Elgorriaga, E. (2016). Ambivalent sexism inventory: Adaptation to Basque population and sexism as a risk factor of dating violence. *Spanish Journal of Psychology, 19*, E78. https://doi.org/10.1017/sjp.2016.80

Institute for Family Studies. (2019). *World Family Map 2019. Mapping family change and child well-being outcomes*. Wheatley Institution https://ifstudies.org/ifs-admin/resources/reports/worldfamilymap-2019-051819.pdf.

Jiménez-Picón, N., Romero-Martín, M., Romero-Castillo, R., Palomo-Lara, J. C., & Alonso-Ruíz, M. (2022). Internalization of the romantic love myths as a risk factor for gender violence: A systematic review and meta-analysis. *Sexuality Research and Social Policy*. https://doi.org/10.1007/s13178-022-00747-2

Lelaurain, S., Fonte, D., Giger, J.-C., Guignard, S., & Lo Monaco, G. (2018). Legitimizing intimate partner violence: The role of romantic love and the mediating effect of patriarchal ideologies. *Journal of Interpersonal Violence, 36*(13–14), 6351–6368. https://doi.org/10.1177/0886260518818427

Lloret-Segura, S., Ferreres-Traver, A., Hernández-Baeza, A., & Tomás-Marco, I. (2014). El análisis factorial exploratorio de los ítems: Una guía práctica, revisada y actualizada [exploratory item factor analysis: A practical guide revised and updated]. *Anales de Psicología, 30*(3), 1151–1169. https://doi.org/10.6018/analesps.30.3.199361

Lopez-Del Burgo, C., Osorio, A., de la Rosa, P. A., Calatrava, M., & de Irala, J. (2021). Assessing adolescent dating violence in the yourlife project: Proposal of an instrument for Spanish-speaking countries. *Journal of Environmental Research and Public Health, 8*(13), 6824. https://doi.org/10.3390/ijerph18136824

Machimbarrena, J. M., Calvete, E., Fernández-González, L., Álvarez-Bardón, A., Álvarez-Fernández, L., & González-Cabrera, J. (2018). Internet risks: An overview of victimization in cyberbullying, cyber dating abuse, sexting, online grooming and problematic internet use. *International Journal of Environmental Research and Public Health, 15*(11), 1–15. https://doi.org/10.3390/ijerph15112471

Marcos, V., Gancedo, Y., Castro, B., & y Selaya, A. (2020). Dating violence victimization, perceived gravity in dating violence behaviors, sexism, romantic love myths and

emotional dependence between female and male adolescents. *Revista Iberoamericana de Psicología y Salud, 11*(2), 132–145. https://doi.org/10.23923/j.rips.2020.02.040

Martínez-Soto, A., & Ibabe, I. (2023). Cyber dating abuse: Conceptualization and meta-analysis of prevalence rates. *Anuario de Psicología Jurídica*. https://doi.org/10.5093/apj2023a11. Ahead of print.

Melander, L. A., & Marganski, A. J. (2020). Cyber and in-person intimate partner violence victimization: Examining maladaptive psychosocial and behavioral correlates. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 14*(1). https://doi.org/10.5817/CP2020-1-1. Article 1.

Molla-Esparza, C., López-González, E., & Losilla, J. M. (2021). Sexting prevalence and socio-demographic correlates in Spanish secondary school students. *Sexuality Research and Social Policy, 18*, 97–111. https://doi.org/10.1007/s13178-020-00434-0

Monteiro, A. P., Guedes, S., & Correia, E. (2023). Cyber dating abuse in higher education students: Self-esteem, sex, age and recreational time online. *Social Sciences, 12*(3), 139. https://doi.org/10.3390/socsci12030139

Morelli, M., Bianchi, D., Baiocco, R., Pezzuti, L., & Chirumbolo, A. (2016). Sexting, psychological distress and dating violence among adolescents and young adults. *Psicothema, 28*(2), 137–142. https://doi.org/10.7334/psicothema2015.193

Muñoz-Fernández, N., Ortega-Rivera, J., Nocentini, A., Menesini, E., & Sánchez-Jiménez, V. (2019). The efficacy of the "Dat-e Adolescence" prevention program in the reduction of dating violence and bullying. *International Journal of Environmental*.

Nason-Clark, N., Fisher-Townsend, B., Holtmann, C., & McMullin, S. (2018). *Religion and intimate partner violence: Understanding the challenges and proposing solutions*. Oxford University Press.

Nava-Reyes, M. A., Rojas-Solís, J. L., Greathouse, L. M., & Morales, L. A. (2018). Gender roles, sexism and myths of romantic love in Mexican adolescents. *Revista Interamericana de Psicología, 52*(1), 102–111. https://n2t.net/ark:/13683/ppxs/eUu.

Niolon, P. H., Vivolo-Kantor, A. M., Latzman, N. E., Valle, L. A., Kuoh, H., Burton, T., Taylor, B. G., & Tharp, A. T. (2015). Prevalence of teen dating violence and co-occurring risk factors among middle school youth in high-risk urban communities. *Journal of Adolescent Health, 56*(2 Suppl 2). https://doi.org/10.1016/j.jadohealth.2014.07.019. S5–S13.

Papp, L. J., Liss, M., Erchull, M. J., Godfrey, H., & Waaland-Kreutzer, L. (2017). The dark side of heterosexual romance: Endorsement of romantic beliefs relates to intimate partner violence. *Sex Roles: Journal of Research, 76*(1–2), 99–109. https://doi.org/10.1007/s11199-016-0668-0

Perales, F., & Bouma, G. (2019). Religion, religiosity and patriarchal gender beliefs: Understanding the Australian experience. *Journal of Sociology, 55*(2), 323–341. https://doi.org/10.1177/1440783318791755

Quesada, S., Fernández-González, L., & Calvete, E. (2018). El sexteo (sexting) en la adolescencia: Frecuencia y asociación con la victimización de ciberacoso y violencia en el noviazgo [sexting in adolescence: Frequency and association with victimization of cyberbullying and dating violence]. *Behavioral Psychology, 26*(2), 225–242.

Rodríguez-Castro, Y., & Alonso-Ruido, P. (2015). Análisis de los discursos de los y las jóvenes sobre la violencia en las relaciones de pareja. [Analysis of the speeches of the oung people on violence in intimate relationships]. *Revista de Estudios e Investigación en Psicología y Educación*, (2), 15–18. https://doi.org/10.17979/reipe.2015.0.02.235

Rodríguez-Castro, Y., Lameiras-Fernández, M., Carrera-Fernández, M.-V., & Vallejo-Medina, P. (2013). The reliability and validity of the myths scale toward love: Adolescents' beliefs. *International Journal of Social Psychology, 28*(2), 157–168. https://10.1174/021347413806196708.

Romo-Tobón, R., Vázquez-Sánchez, V., Rojas-Solís, J. L., & Alvídrez, S. (2020). Cyberbullying y ciberviolencia de pareja en alumnado de una universidad privada mexicana [Cyberbullying and cyber dating abuse in students of a private Mexican university]. *Propósitos y Representaciones, 8*(2), e303. https://doi.org/10.20511/pyr2020.v8n2.303

Rostosky, S. S., Wilcox, B. L., Wright, M. L. C., & Randall, B. A. (2004). The impact of religiosity on adolescent sexual behavior: A review of the evidence. *Journal of Adolescent Research, 19*(6), 677–697. https://doi.org/10.1177/0743558403260019

Sánchez-Hernández, M. D., Herrera-Enríquez, M. C., & Expósito, F. (2020). Controlling behaviors in couple relationships in the digital age: Acceptability of gender violence, sexism, and myths about romantic love. *Psychosocial Intervention*. https://doi.org/10.5093/pi2020a1. *Ahead of print*.

Straus, M. A. (2011). Gender symmetry and mutuality in perpetration of clinical-level partner violence: Empirical evidence and implications for prevention and treatment. *Aggression and Violent Behavior, 16*(4), 279–288. https://doi.org/10.1016/j.avb.2011.04.010

Van Ouytsel, J., Torres, E., Choi, H. J., Ponnet, K., Walrave, M., & Temple, J. R. (2017). The associations between substance use, sexual behaviors, bullying, deviant behaviors, health, and cyber dating abuse perpetration. *The Journal of School Nursing, 33*(2), 116–122. https://doi.org/10.1177/1059840516683229

Van Ouytsel, J., Walrave, M., & Ponnet, K. (2019). Sexting within adolescents' romantic relationships: How is it related to perceptions of love and verbal conflict? *Computers in Human Behavior, 97*, 216–221. https://doi.org/10.1016/j.chb.2019.03.029

Viejo, C., Leva, B., Paredes, J., & Ortega-Ruiz, R. (2020). Bullying and psychological dating violence: The relation between two aggressive peer-behaviors. *Psicothema, 32* (4), 533–540. https://doi.org/10.7334/psicothema2019.223

Wang, M., Horne, S. G., Levitt, H. M., & Klesges, L. M. (2009). Christian women in IPV relationships: An exploratory study of religious factors. *Journal of Psychology and Christianity, 28*(3), 224–235.

Westenberg, L. (2017). 'When she calls for help'—domestic violence in Christian families. *Social Sciences, 6*(3), 71. https://doi.org/10.3390/socsci6030071

Zweig, J. M., Dank, M., Yahner, J., & Lachman, P. (2013). The rate of cyber dating abuse among teens and how it relates to other forms of teen dating violence. *Journal of Youth and Adolescence, 42*, 1063–1077. https://doi.org/10.1007/s10964-013-9922-8

Zych, I., Viejo, C., Vila, E., & Farrington, D. P. (2019). School bullying and dating violence in adolescents: A systematic review and meta-analysis. *Trauma, Violence, & Abuse, 22*(2), 397–412. https://doi.org/10.1177/1524838019854460